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PTO/SB/08A (04-03)

Approved for use 04-30-2003. OMB 0651-0031

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	1	Of	8
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COMPLETE IF KNOWN

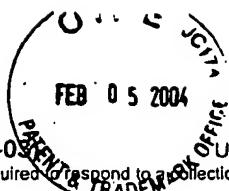
Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Art Unit	2828
Examiner Name	Dung T. Nguyen
Attorney Docket Number	H0002992

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
D		US 4445218		04-24-1984	Coldren	
		US 4608697		08-26-1986	Coldren	
		US 4622672		11-11-1986	Coldren et al.	
		US 4829347		05-09-1989	Cheng et al.	
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		US 5045499		09-03-1991	Nishizawa et al.	
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		US 5245622	A	09-14-1993	Jewell et al.	
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V		US 5568504	A	10-22-1996	Kock et al.	
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		US 5631472	A	05-20-1997	Cunningham et al.	
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		US 5719894	A	02-17-1998	Jewell et al.	

Examiner Signature		Date Considered	06/07/04
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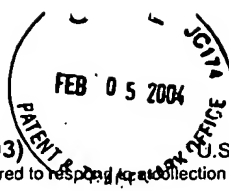
Substitute for form 1449B-PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <small>(USE AS MANY SHEETS AS NECESSARY)</small> <table border="1"><tr><td>Sheet</td><td>2</td><td>Of</td><td>8</td></tr></table>	Sheet	2	Of	8	COMPLETE IF KNOWN	
	Sheet	2	Of	8		
	Application Number	10/078,473				
	Filing Date	2-21-02				
	First Named Inventor	Ho Ki Kwon				
	Group Art Unit	2828				
Examiner Name	Dung T. Nguyen					
Attorney Docket Number	H0002992					

24	US	5719895	A	02-17-1998	Jewell et al.	
	US	5729567	A	03-17-1998	Nakagawa	
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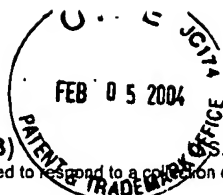
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Sheet 3 Of 8

COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Group Art Unit	2828
Examiner Name	Dung T. Nguyen
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ow	US 6061381	A	05-09-2000	Adams et al.	
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	US 6127200	A	10-03-2000	Ohiso et al.	
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V	US 2003/ 0118067	A1	06-26-2003	Johnson	



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	US 2003/0118069	A1	06-26-2003	Johnson	
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	US 2003/0157739	A1	08-21-2003	Jiang et al.	
	US 2003/0231680	A1	12-18-2003	Dariusz Burak	

Examiner Signature		Date Considered	06/07/04
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Sheet 4 Of 8

COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Group Art Unit	2828
Examiner Name	Dung T. Nguyen
Attorney Docket Number	H0002992

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
dw		EP	0 740 377	A1	10-30-1996	Hewlett-Packard Company		
		EP	0 740 377	B	10-30-1996	Hewlett-Packard Company		
		EP	0 765 014	A1	03-26-1997	France Telecom		
		EP	0 765 014	B1	07-28-1999	France Telecom		
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		EP	0 999 621	B1	11-04-1999	Jayaraman et al.		
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		JP	57026492	A	02-12-1982	NEC Corp.		
		WO	98/007218	A1	02-19-1998	W.L. Gore & Associates, Inc.		
		WO	00/033433	A2	06-08-2000	Arizona Board of Regents		
		WO	00/033433	A3	06-08-2000	Arizona Board of Regents		
		WO	00/038287	A1	06-29-2000	Honeywell, Inc.		
		WO	00/052789	A2	02-29-2000	The Regents of the University of California		
		WO	00/052789	A3	02-29-2000	The Regents of the University of California		
		WO	00/065700	A2	11-02-2000	Gore Enterprise Holdings, Inc.		
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		WO	01/016642	A2	03-08-2001	Agility Communications		
		WO	01/016642	A3	03-08-2001	Agility Communications		
		WO	01/017076	A2	03-08-2001	The Regents of the University of California		

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Sheet 5 Of 8

COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Group Art Unit	2828
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WO	01/017076	A3	03-08-2001	The Regents of the University of California		
WO	01/018919	A1	03-15-2001	The Regents of the University of California		
WO	01/024328	A2	04-05-2001	Agility Communications		
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WO	01/093387	A2	12-06-2001	Sandia Corporation		
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WO	02/017445	A1	02-28-2002	The Regents of the University of California		
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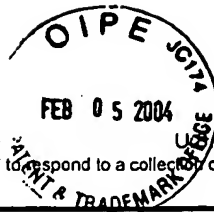
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
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✓	BLACK, K., et al., "Double-fused 1.5 μ m vertical cavity lasers with record high T_0 of 132K at room temperature", article, Oct 1, 1998, pgs 1947-9, Vol. 34, No. 20, Electronics Letters.	
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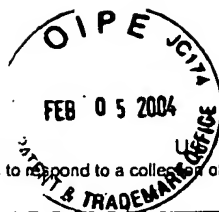
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COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Group Art Unit	2828
Examiner Name	Dung T. Nguyen
Attorney Docket Number	H0002992

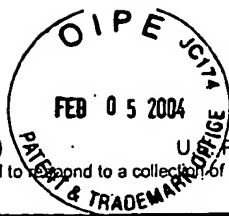
<i>HW</i>	<input checked="" type="checkbox"/>	HONG, Y., et al., "Growth of GaInNAs quaternaries using a digital alloy technique", conference paper, Oct 01/3, 2001, pgs 1163-6, Journal of Vacuum Science and Technology B: Microelectronics and Nanometer Structures.	
	<input checked="" type="checkbox"/>	HUFFAKER, D., et al., "1.15 μm wavelength oxide-confined quantum-dot vertical-cavity surface-emitting laser", article, Feb 1998, pgs 185-7, Vol. 10, No. 2, IEEE Photonics Technology Letters.	
	<input checked="" type="checkbox"/>	HUFFAKER, D., et al., "1.3 μm room-temperature GaAs-based quantum-dot laser", Nov 2, 1998, pgs 2564-6, Vol. 73, No. 18, Applied Physics Letters.	
	<input checked="" type="checkbox"/>	IGA, K., "Semiconductor laser in the 21 st century", California conference papers, Jan 22/4, 2001, pgs xi-xxv, Photodetectors: Materials and Devices VI.	
	<input checked="" type="checkbox"/>	JAYARAMAN, V., et al., "Uniform threshold current, continuous-wave, single mode 1300 nm vertical cavity lasers from 0 to 70°C", article, Jul 9, 1998, pgs 1405-7, Vol. 34, No. 14, Electronics Letters.	
	<input checked="" type="checkbox"/>	KIM, J., et al., "Epitaxially-stacked multiple-active-region 1.55 μm lasers for increased differential efficiency", article, May 31, 1999, pgs 3251-3, Vol. 74, No. 22, Applied Physics Letters.	
	<input checked="" type="checkbox"/>	KIM, J., et al., "Room-temperature, electrically-pumped multiple-active-region VCSELs with high differential efficiency at 1.55 μm ", article, Jun 24, 1999, pgs 1-2, Vol. 35, No. 13, Electronics Letters.	
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	<input checked="" type="checkbox"/>	LEE, Y., et al., "Physics and nonlinear device applications of bulk and multiple quantum well GaAs", invited paper, 1987, pgs 128-133, SPIE Vol. 792 Quantum Well and Superlattice Physics (1987).	
	<input checked="" type="checkbox"/>	LI, J., et al., "Persistent photoconductivity in $\text{Ga}_{1-x}\text{In}_x\text{N}_y\text{As}_{1-y}$ ", article, Sep 27, 1999, pgs 1899-1901, Vol. 75, No. 13, Applied Physics Letters.	
	<input checked="" type="checkbox"/>	LIVSHITS, E., "8W continuous wave operation of InGaAsN lasers at 1.3 μm ", article, Aug 3, 2000, pgs 1381-2, Vol. 36, No. 16, Electronics Letters.	
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	<input checked="" type="checkbox"/>	NAONE, R., et al., "Tapered air apertures for thermally robust VCL structures", article, Nov 1999, pgs 1339-41, Vol. 11, No. 11, IEEE Photonics Technology Letters.	
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Sheet 8 Of 8

COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Group Art Unit	2828
Examiner Name	Dung T. Nguyen
Attorney Docket Number	H0002992

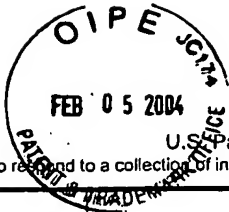
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✓	Zeng, L. "Red-green-blue photopumped lasing from ZnCdMgSe/ZnCdSe quantum well laser structures grown on InP, Received March 10, 1998 accepted for publication, April 15, 1998, 1998 American Institute of Physics. (S0003-6951(98)02524-8)

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Sheet 1 Of 2

COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2/21/2002
First Named Inventor	Ho Ki Kwon
Art Unit	2828
Examiner Name	Dung T. Nguyen.
Attorney Docket Number	H0002992

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
M ↓ ✓		US 5,659,180	A	08-19-1997	Shen et al.	
		US 5,679,963		10-21-1997	Klem et al.	
		US 6,052,398		4-18-2000	Brilouet et al.	
		US 5,753,050		5-1-1998	Charache et al.	
		US 5,800,630		9-1-1998	Vilela et al.	
		US				
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
M		WO	01/63708	A2	8-30-2001	Boucart et al.		X
		EP	0 715 357	A1	6-5-1996	McDermott		X
								X

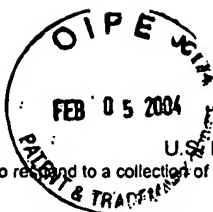
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Sheet	2	Of	2
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<i>W</i>		B.T. McDermott et al., Appl. Phys. Lett. 68,1386 (1996), "Growth and doping of GaAsSb via MOCVD for InP HBTs"	
<i>↓</i>		S.M. Bedair et al., J. Electron. Mater. 12,959 (1983), "Growth of GaAs(1-x)Sbx by OMVPE"	
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<i>↓</i>		S.P. Watkins et al., J. Cryst. Growth 221, 59 (2000), "Heavily carbon-doped GaAsSb grown on InP for HBT applications"	
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